

Applicants: Arlindo L. Castelhana et al.
Serial No.: Not Yet Known
Filed : Herewith
Page 8

Amendments to the Claims

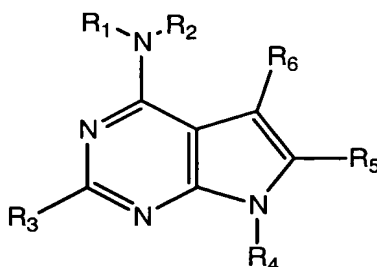
Please cancel claims 1-4, 6-10, 13-21 and 24-186 without disclaimer or prejudice to applicants' right to pursue the subject matter of these claims in this or a related application.

Please amend claims 5, 11, 12, 22 and 23 and add new claims 187-189 under the provisions of 37 C.F.R. §1.121, as set forth in the Federal Register on June 30, 2003, as follows:

Applicants: Arlindo L. Castelhana et al.
Serial No.: Not Yet Known
Filed : Herewith
Page 9

Claims 1-4. (Canceled)

5. (Currently Amended) ~~The method of claim 1, wherein said N-6 substituted 7-deazapurine~~
A method for treating a disease or condition associated with increased levels of adenosine in a
subject, which comprises administering to the subject a therapeutically effective amount of an
N-6 substituted 7-deazapurine so as to thereby treat the disease or condition associated with
increased levels of adenosine in the subject, wherein said N-6 substituted 7-deazapurine has the
formula I:



(I)

wherein,

~~R₁ and R₂ are each independently a hydrogen atom, or a substituted or unsubstituted alkyl, aryl,~~
~~or alkylaryl moiety or~~

R₁ and R₂ together form a substituted or unsubstituted heterocyclic ring;

~~R₃ is a hydrogen atom or a substituted or unsubstituted alkyl, aryl, or alkylaryl moiety;~~

~~R₄ is a hydrogen atom, or a substituted or an unsubstituted alkyl, or a substituted or~~
unsubstituted aryl, or alkylaryl moiety; and

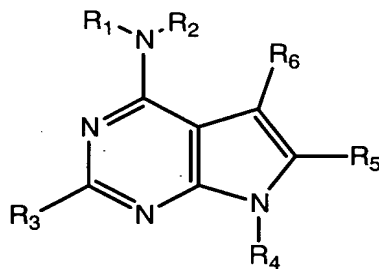
~~R₅ and R₆ are each independently a halogen atom, a hydrogen atom or a substituted or~~
~~unsubstituted alkyl, aryl, or alkylaryl moiety, or R₄ and R₅ or R₅ and R₆ together form a~~
~~substituted heterocyclic or carbocyclic ring.~~

wherein the disease or condition associated with increased levels of adenosine in the subject
is mast cell degranulation, neutrophil chemotaxis, Parkinson's disease, sedation, asthma, cerebral
ischemia, antidiuresis, allergic rhinitis, bronchitis, bronchoconstriction, chronic obstructive
pulmonary disease, or glaucoma.

Applicants: Arlindo L. Castelhana et al.
Serial No.: Not Yet Known
Filed : Herewith
Page 10

Claims 6-10. (Canceled)

11. (Currently Amended) An N-6 substituted 7-deazapurine having the formula I:



wherein,

~~R₁ and R₂ are each independently a hydrogen atom, or a substituted or unsubstituted alkyl, aryl, or alkylaryl moiety or~~

~~R₁ and R₂ together form a substituted or unsubstituted heterocyclic ring, provided that both R₁ and R₂ are both not hydrogen atoms or that neither R₁ or R₂ is 1-phenylethyl;~~

~~R₃ is a hydrogen atom or a substituted or unsubstituted alkyl, aryl, or alkylaryl moiety;~~

~~R₄ is a hydrogen atom, or a substituted or an unsubstituted alkyl, or a substituted or unsubstituted aryl, or alkylaryl moiety; and~~

~~R₅ and R₆ are each independently a halogen atom, a hydrogen atom or a substituted or unsubstituted alkyl, aryl, or alkylaryl moiety, or R₄ and R₅ or R₅ and R₆ together form a substituted heterocyclic or carbocyclic ring, provided R₄ is not 1-phenylethyl, and or a pharmaceutically acceptable salts salt thereof.~~

12. (Currently Amended) A deazapurine of claim 11, wherein:

~~R₁ is hydrogen;~~

~~R₂ is substituted or unsubstituted cycloalkyl, substituted or unsubstituted alkyl, or R₁ and R₂ together form a substituted or unsubstituted heterocyclic ring;~~

~~R₃ is unsubstituted or substituted aryl;~~

~~R₄ is hydrogen; and~~

~~R₅ and R₆ are each independently hydrogen or alkyl, and or a pharmaceutically acceptable salts salt thereof.~~

Applicants: Arlindo L. Castelhana et al.
Serial No.: Not Yet Known
Filed : Herewith
Page 11

Claims 13-21. (Canceled)

22. (Currently Amended) The deazapurine of ~~claim 21~~ claim 12, wherein said heterocyclic ring is substituted with an amine.

23. (Currently Amended) The deazapurine of ~~claim 21~~ claim 12, wherein said heterocyclic ring is substituted with acetamido.

Claims 24-186. (Canceled)

187. (New) The deazapurine of claim 11, wherein any substituent, if present, is halogen, hydroxyl, alkylcarbonyloxy, arylcarbonyloxy, alkoxycarbonyloxy, aryloxy carbonyloxy, carboxylate, alkylcarbonyl, alkoxycarbonyl, aminocarbonyl, alkylthiocarbonyl, alkoxyl, phosphate, phosphonate, phosphinato, cyano, amino, alkyl amino, dialkylamino, arylamino, diarylamino, alkylaryl amino, acylamino, alkylcarbonylamino, arylcarbonylamino, carbamoyl, ureido, amidino, imino, sulfhydryl, alkylthio, arylthio, thiocarboxylate, sulfates, sulfonate, sulfamoyl, sulfonamido, nitro, trifluoromethyl, cyano, azido, heterocyclyl, alkylaryl, or an aromatic or heteroaromatic moiety;

which substituent may be further substituted by any of the above.

188. (New) The deazapurine of claim 187, wherein any substituent, if present, is halogen, hydroxyl, alkylcarbonyloxy, alkoxycarbonyloxy, carboxylate, alkylcarbonyl, alkoxycarbonyl, aminocarbonyl, alkylthiocarbonyl, alkoxyl, amino, alkylamino, dialkylamino, acylamino, alkylcarbonylamino, arylcarbonylamino, carbamoyl, ureido, amidino, imino, nitro, heterocyclyl, alkylaryl, or an aromatic or heteroaromatic moiety;

which substituent may be further substituted by any of the above.

Applicants: Arlindo L. Castelhana et al.
Serial No.: Not Yet Known
Filed : Herewith
Page 12

189. (New) The deazapurine of claim 188, wherein the substituent is halogen, hydroxyl, alkylcarbonyloxy, alkoxycarbonyloxy, carboxylate, alkylcarbonyl, alkoxycarbonyl, aminocarbonyl, alkylthiocarbonyl, alkoxyl, amino, alkylamino, dialkylamino, acylamino, alkylcarbonylamino, arylcarbonylamino, carbamoyl, ureido, amidino, imino, nitro, heterocyclyl or a heteroaromatic moiety; which substituent may be further substituted by any of the above.